

ORTHOGONAL MEMORY FOR DIGITAL IMAGING DEVICES

ABSTRACT OF THE DISCLOSURE

An orthogonal memory is described that provides an improved method for converting image data into a bit plane format suitable for image compression operations, using a custom dual port memory. The memory comprises a matrix of memory cells that are addressable in orthogonal directions. Upon receipt of image information for storage, the image information is stored in the memory by storing each data word of the image information in a row of the matrix. Individual bit planes of the image information may be easily retrieved from the memory by retrieving individual columns of bits from the corresponding columns of the matrix, thus providing a highly efficient method for storing and accessing image information used to create bit planes.